XPERIA S

LT26i

White paper
January 2012

SONY
make.believe

Purpose of this document

Sony product White papers are intended to give an overview of a product and provide details in relevant areas of technology.

Document history

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Sony Ericsson Developer World

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Product overview

Sony Xperia™ S – Experience everything in HD

Happy faces, remarkable places. Shoot them in full HD video and see them shine back from the crisp clear HD display. Then move on to a wider world of entertainment. Movies, hit music, PlayStation® games. A few clicks away with Xperia™ S and Sony Entertainment Network. And don't keep all the fun to yourself. Share it on your HD TV, straight from your smartphone.

See every detail

See every inch of that award-winning actor. Zoom in on every detail of your favourite TV show. Experience videos, photos and TV in deep, vivid, colour on the large, bright 4.3" HD Reality Display with Mobile BRAVIA® Engine. Sharp pictures. No jagged edges. Merely the terrific entertainment in HD.

Snap your shots in an instant

Some events are too good to miss. Now you don't have to. Start your camera in just over a second. Pointing and shooting takes one second too. And you can keep on shooting. No delays, no missing the subject. Just you capturing that special moment forever. Then share it direct, on Facebook™ or in a message.

Show it like it is

First day of the summer, last day at the beach. Memories may fade, but Xperia™ S keeps them bright. Record it all in full HD video with the 12 megapixel camera, even in low light. The Exmor R™ for mobile camera sensor lightens up any gloomy day.

Got it on your smartphone? Share it on your TV

Want to be entertained? Download a movie from Video Unlimited™*. Connect Xperia ™ S to an HD TV with an HDMI cable and the TV launcher pops up automatically. Now use your phone to play, fast forward, or enjoy your favourite scene again.

Get ready for that kick-down start

Brake late. Hug the chicane. Accelerate hard out of the turn. Packed full of roaring engines and superb effects, Need for Speed™ Shift by EA™ Games comes free with Xperia™ S. Fingers itching for more? Head to Android Market™ for hundreds more PlayStation® titles specially optimised for this PlayStation® certified smartphone. With new games released every week, boredom is not an option.

**Sony Entertainment Network with Video Unlimited and Music Unlimited are not available in every market. Additionale charges may apply.*

Sony Entertainment Network. Your ultimate source for digital entertainment

Feasts for film fans, masses of music. Enjoy 10 million songs from Music Unlimited™*. Or download your favourite hit movies from Video Unlimited. It's all on Sony Entertainment Network and exclusive to Sony Xperia™ smartphones. No trips to the store. No late fees. No monthly subscriptions. Just pure entertainment.

The best tracks from Music Unlimited. The latest movies from Video Unlimited - enjoy everything with one account. It's the perfect fit for a life full of entertainment.

**Sony Entertainment Network with Video Unlimited and Music Unlimited are not available in every market. Additionale charges may apply.*

Signature features

The sony Xperia™ S comes with a range of Sony Ericsson features as standard. Below is a summary of the key signature features.

Sony Ericsson Timescape™

The place to meet your friends

The Timescape™ application manages all your communication with one person in one place. You can effortlessly browse by category your Facebook™, Twitter™, email and text communications, as well as view your photos. Now everything is all together and in chronological order, so you don't have to open different applications to see what's going on.

Sony Ericsson Infinite button

Everything you want – from everywhere

Tap the infinite button in the Timescape™ application and smart filter each category of communication by person. For example, when viewing a text message from a friend in Timescape™, tap the infinite button to view a list of all chat messages with that friend.

Sony Ericsson Local connectivity

More control over your media

Using Sony Ericsson Local connectivity, you can exercise more control over how media files get transferred and stored. For example, you can select MTP mode to transfer files if you want to limit the risk of data corruption or select MSC mode if you want to have more control over the data storage.

Sony Ericsson Home screen application

The place you call Home

Customise your Home screen with widgets, shortcuts, folders, themes, wallpaper and other items. Where’s best for you? Email top right? Music player bottom left? You decide. With four extensions to your Home screen, you’ve got plenty of space to put things where you want. Just remember to flick left or right to find them.

Facts – dimensions, weight, performance and networks

Operating system	Google™ Android™ 2.3 (Gingerbread)
Processor	1.5 GHz Qualcomm MSM8260 Dual Core
GPU	Adreno 220
Size	128 x 64 x 10.6 mm
Weight	144 grams
Available colours	Black White
Main screen	
Colours	16,777,216 colour TFT
Resolution	1280x720 pixels
Size (diagonal)	4.3 inches
Scratch-resistant	Shatter proof sheet on scratch-resistant glass
Input mechanisms	
Text input	On-screen QWERTY keyboard
Touch screen	Capacitive
Touch gesture	Yes – multi-touch, up to 10 fingers supported
Memory	
Internal phone storage	1 to 1.5 GB
RAM	1 GB
Flash memory	32 GB eMMC
Camera	
Camera resolution	12 MP
Digital zoom	16x
Photo flash	No
Video recording	Yes – HD 1080p
Video chat camera	Yes
Front Camera	Yes – HD 720p for video chat and 1.3 MP for camera capture
Sensors	
Accelerometer	Yes
Proximity sensor	Yes

Ambient light sensor	Yes
Magnetometer	Yes
Gyroscope	Yes
Networks	
LT26i	UMTS HSPA 850 (Band V), 900 (Band VIII), 1900 (Band II), 2100 (Band I) GSM GPRS/EDGE 850, 900, 1800, 1900
Data transfer speeds	
GSM GPRS	Up to 86 kbps
GSM EDGE	Up to 237 kbps
UMTS HSPA cat 6 (upload)	Up to 5.8 Mbps
UMTS HSPA cat 10(download)	Up to 14.4 Mbps
Talk time (GSM)	Up to 7 hours 30 min*
Standby time (GSM)	450 hours*
Talk time (UMTS)	Up to 8 hours 30 min*
Standby time (UMTS)	Up to 420 hours*
Music listening time	Up to 25 hours
Video playback time	Up to 6 hours 30 min
Embedded Battery	1750 mAh typical 1700 mAh minimum

** Values are according to GSM Association Battery Life Measurement Technique.*

NOTE: Battery performance may vary depending on network conditions and configurations, and phone usage.

Categorised feature list

Camera
3D sweep panorama
12 megapixel camera
16x digital zoom
Aperture f/2.4
Auto focus
Face detection
Face recognition
Flash/LED
Front-facing camera (1.3 MP 720p)
Geo tagging
HD video recording (1080p)
Image stabiliser
Red-eye reduction
Scene recognition
Self-timer
Send to web
Smile Shutter™
Sony Exmor R™ for mobile image sensor
Sweep panorama
Touch focus
Video light
Video recording

Music
3D surround sound
Album art
Bluetooth™ stereo (A2DP)
Clear audio
Clear bass
Music tones (MP3/AAC)
PlayNow™ service*
Music player
TrackID™ music recognition*
xLoud™ Experience

Internet
Android Market™**
Bookmarks
Google™ search*
Google Voice™ Search*
Google Maps™ for Mobile with Street view and Latitude*
Pan & zoom
Web browser (WebKit)

Communication
Call list
Facebook™ application*
Google Talk™ application*
Noise suppression
Polyphonic ringtones
Sony Ericsson Timescape™
Speakerphone
Twitter™ (Timescape™ integration)*
Vibrating alert

Messaging
Conversations
Email
Gmail™*
Instant messaging
Multimedia messaging (MMS)
Predictive text input
Sound recorder
Text messaging (SMS)

Design
720p HD display
Auto rotation
Gesture input
Keyboard (on-screen, QWERTY)
Reality Display with Sony Mobile BRAVIA® Engine
Screenshot capturing
Touch screen
Wallpaper

Entertainment

3D games
Accelerated Adobe Flash Video
Google Media Uploader
Media browser
Motion gaming
PlayStation® Certified
Radio (FM radio with RDS)
Sony Entertainment Networks*
TV launcher
Video streaming
YouTube™*

Organiser

Alarm clock
Calculator
Calendar
Contacts
Document readers
eCompass™
Airplane mode
Infinite button
Notes
Setup guide
Stopwatch
Tasks
Timer

Connectivity

3.5 mm audio jack (CTIA)
aGPS*
Bluetooth™ technology
DLNA Certified®
GLONASS*
HDMI support
Media Transfer Protocol support
Micro USB support
Native USB tethering
NFC
USB High speed 2.0 support
Wi-Fi®
Wi-Fi® Hotspot functionallity

** This service is not available in all markets.*

*** Applications from the Android Market™ vary widely in size, from less than 100 KB for small utilities to 3-4 MB for full games, music player applications, or other major offerings. The average size, if a representative selection of useful and fun applications is selected, is about 1 MB. This means that, on average, more than 100 applications can be downloaded and used on your device without negatively impacting performance. With the ready availability of the Android Market™ application in the phone, it is also very easy to delete and later reinstall infrequently used applications.*

Technologies in detail

NOTE: The information outlined below is general and levels of compliance to standards and specifications may vary between products and markets. For more information, contact Sony Ericsson Developer World or your Sony contact person where applicable.

Device-to-device communications (local)

Bluetooth™ wireless technology

Bluetooth™ profiles supported	Advanced Audio Distribution Profile v1.2 Audio/Video Remote Control Profile v1.0 Handsfree Profile v1.5 Headset Profile v1.1 Object Push Profile v1.1 Phonebook Access Profile v1.0
Core version and supported core features	Advanced Audio 2.1 + EDR
Connectable devices	Products supporting at least one of the profiles above.

More information:

www.sonyericsson.com/developer

www.bluetooth.com

Wi-Fi®

Supported standards	IEEE 802.11b/g/n and Wi-Fi
Connectable devices	Wi-Fi® access points
Frequency band	2.4 GHz
Data transfer rate	Up to 72 Mbit/s
Security	WEP 64 bit WEP 128 bit Wi-Fi Direct TKIP CCMP (AES) Open Authentication Shared Authentication EAP-SIM EAP-TLS EAP-TTLS/MSCHAPv2 PEAPv0/EAP-MSCHAPv2 PEAPv1/EAP-GTC WPA Personal and WPA2 Personal WPA Enterprise and WPA2 Enterprise
Encryption	WEP, TKIP and AES
Power save	WMM-UAPSD QoS, WMM

DLNA Certified™ (Digital Living Home Alliance)

Supported Device Classes	• M-DMS – Mobile Digital Media Server Media Types: images Summary: The digital media server exposes the media files in your phone to a Wi-Fi® network. The files can then be accessed from other DLNA Certified™ clients. • +PU+ Media Types: image, video and music Summary: Play media in the phone on another device, such as a TV and so on using 2 box push technology. +PU+ is integrated in the Gallery and Music applications. • M-DMP – Mobile Digital Media Player Media Types: image, video and music Summary: Play content stored on for example a server or a PC directly on the phone.
Supported Bearers	Wi-Fi® Wi-Fi Direct
DRM Support	The Sony DLNA Certified™ implementation does not support DRM-protected content.

NOTE: Only M-DMS/M-DMP/+PU+ for Image is used for DLNA Certification.

Messaging

MMS (Multimedia Messaging Service)

According to OMA Multimedia Messaging Service v1.0 + SMIL

Email

Bearer type (IP)	GPRS, EGPRS, UMTS
Character sets	BIG5 Traditional Chinese GB18030 ISO-2022-JP Japanese ISO-8859-1 ISO-8859-2 Eastern Europe ISO-8859-5 Cyrillic ISO-8859-7 Greek ISO-8859-9 Turkish ISO 8859-11 KOI8-R Cyrillic Shift_JIS Japanese USASCII UTF-16 UTF-8 Windows® 874 Windows® 1251 Cyrillic Windows® 1252 Windows® 1254 Turkish Windows® 1258 Vietnamese
Protocols	POP3 and IMAP4
Push email	Microsoft® Exchange ActiveSync® (EAS)
Secure email	SSL/TLS, both port methods (POPS/IMAPS) and START-TLS
HTML mail	Yes (read only)

More information:

www.sonyericsson.com/developer

www.openmobilealliance.org

Positioning – location based services

Supported standards:

- OMA Secure User Plane Location (SUPL) v1.0
- 3GPP™ Control Plane location (incl. Emergency location)
- Qualcomm® GPSOneXtra™

Supported satellite systems:

- GPS
- GLONASS*

* **NOTE***:* GPS and GLONASS are used together to calculate the position. Positioning is more robust and accurate in most conditions, if both systems are active. The benefits of using GLONASS are automatically available for all applications using the Satellite Positioning API ("GPS Provider" in Android terminology).

Provisioning (OMA CP)

OMA CP version 1.1

Multimedia (audio, image and video)

Audio Playback	**Decoder format**	**Supported in file format**
	Audio decoding MPEG-1/2/2.5, audio layer 3	MP3 (.mp3), 3GPP (.3gp), MP4 (.mp4, .m4a)
	AAC, AAC+, eAAC+	3GPP (.3gp), MP4 (.mp4)
	AMR-NB, AMR-WB	3GPP (.3gp)
	General MIDI (GM)	SMF (.mid)
	Linear PCM 16bit	WAV (.wav)
	OTA	OTA (.ota)
	Ogg vorbis	Ogg vorbis (.ogg)
Audio Recording	**Encoder format**	**Supported in file format**
	AMR-NB, AMR-WB	3GPP (.3gp), MP4 (.mp4), AMR (.amr)
	AMR-NB, AMR-WB, AAC-LC stereo, sample rate 48 kHz bit rate 128 kbps	3GPP (.3gp), MP4 (.mp4)
Image Playback	**Decoder format**	**Supported in file format**
	1, 4, 8, 16, 24 and 32 bpp and RLE encoded formats	BMP (.bmp)
	Single and multi-frame, bitmap mask support (GIF87a format and GIF89a format)	GIF (.gif)
	Joint Photographic Experts Group	JPEG (.jpg)
	Portable Network Graphics Bitmap mask support	PNG (.png)
	Wireless Bitmap	WBMP (.wbmp)
Image Capture	**Encoder format**	**Supported in file format**
	Joint Photographic Experts Group	JPEG (.jpg)
Video Playback	**Decoder format**	**Supported in file format**
	MPEG-4 Simple Profile Level 6, Advanced Simple Profile Level 5	3GPP (.3gp), MP4 (.mp4)
	H.264 High Profile Level 3.2	3GPP (.3gp), MP4 (.mp4)
	H.263 Profile 0 Level 70	3GPP (.3gp)

Video Recording	Encoder format	Supported in file format
	Video H.263 Profile 0, H.264 Baseline Profile Audio: AAC-LC stereo, sample rate 48 kHz bit rate 128 kbps, AMR-NB	3GPP (.3gp), MP4 (.mp4)
Audio/Video Streaming	Streaming transport	RTSP according to 3GPP™ HTTP streaming
DRM	DRM (Digital Rights Management) – features the rights and copy protection of downloaded content	OMA DRM 1.0 Marlin DRM

Synchronisation (OMA DS, EAS, Google Sync™)

OMA Data Synchronisation protocol versions 1.1.2 and 1.2

OMA Data Formats: vCard 2.1, vCalendar 1.0

Microsoft® Exchange ActiveSync® protocol version 2.5

Microsoft® Exchange ActiveSync® protocol version 12

Microsoft® Exchange ActiveSync® protocol version 12.1

Google Sync™

Related information:

www.sonyericsson.com/developer

Web browser

Browser version	Android 2.3 Browser (Based on WebKit)
Navigation/rendering	Adobe™ Flash™ 11* Full page PC rendering Landscape/portrait rendering Pan & Zoom Sharing links using NFC
Search	Internet Search
Browser compliancy	CSS 2.0 CSS 2.1 CSS 3.0 DOM 2.0 DOM 3.0 HTML version. 4.0 HTML version. 5.0 JavaScript 1.7/ECMA-script 262 3rd edition WebGL 1.0 XHTML Basic version 1.0 XHTML 1.1
Supported Device API	Geo-location API
Protocol compliancy	Gzip HTTP/1.1 OMA Download 1.0 TLS 1.0 and SSL 3.0

** Updates are distributed via Android market™.*

Related information: *www.sonyericsson.com/developer*

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